

## **REMARKS**

### **I. Status of the Claims**

With the entry of the amendment above, the pending claims are Claims 29-57. Claims 29 and 48 are the only pending independent claims, with Claims 30-47 and 49-57 being the pending dependent claims. Claims 29 and 48 are each directed to a process for making a backseamed casing which includes wrapping the film longitudinally around a forming shoe and sealing the film longitudinally to form a backseam.

The amendments include the amendment of independent Claim 48, and the addition of newly presented Claims 50-57. Independent Claim 48 is amended by the insertion of a negative limitation, i.e., that "...the first outer layer does not comprise a blend of a propylene/ethylene copolymer and homogeneous ethylene/alpha-olefin copolymer having a density of less than 0.90 g/cc wherein the blend makes up a majority of the first outer layer. Support for this amendment can be found in Applicants' specification at Page 30 lines 6-14 of Applicants' specification. Similarly, newly-presented dependent Claim 49 recites "...wherein the first outer layer does not comprise a blend of propylene/ethylene copolymer and homogeneous ethylene/alpha-olefin copolymer having a density of less than 0.90 g/cc". Support for Claim 49 can also be found at Page 30 lines 6-15 of Applicants' specification. The amendment of Claim 48 is made to ensure the patentability of Claim 48 over AU-A-47567/93, which teaches the use of a seal layer containing a blend expressly excluded by the above amendment of Claim 48.

Support for new claim 50, which recites the second layer as comprising the first polyamide, can be found in the specification at, for example, Page 5 lines 28-29. Support for new Claim 51, which recites the first polyamide as comprising at least one member selected from the group consisting of polyamide 6, polyamide 66, polyamide 9, polyamide 10, polyamide 11, polyamide 12, polyamide 69, polyamide 610, polyamide 612, polyamide 6I, polyamide 6T, and copolymers thereof, can be found in the specification at, for example, Page 6 lines 19-23.

Support for new Claim 52, which recites the first polyamide as comprising at least one member selected from the group consisting of polyamide 6, polyamide 6I, polyamide 6T, and copolymers thereof, can also be found in the specification at Page 6 lines 19-23. Support for new Claim 53, which recites the second polyolefin as having a vicat softening point of at least 90°C, and the third polyolefin as having a vicat softening point of at least 90°C, can be found in the specification at Page 6 lines 26-28 and Page 23 lines 22-26. Support for new Claim 54, which recites the casing film as having biaxial orientation and a free shrink at 185°F of at least 10% in at least one direction, can be found in the specification at Page 7 line 30 through Page 8 line 1. Support for new Claim 55, which recites at least a portion of the casing film comprising a crosslinked polymer network, can be found in the specification at Page 8 lines 1-2. Support for new Claim 56, which recites the backseamed casing as being a lap-seal backseamed casing, can be found in the specification at Page 8 lines 3-4.

The amendments include no new matter.

## II. The Rejection of Claims 29-38 and 40-48 under 35 USC 103(a)

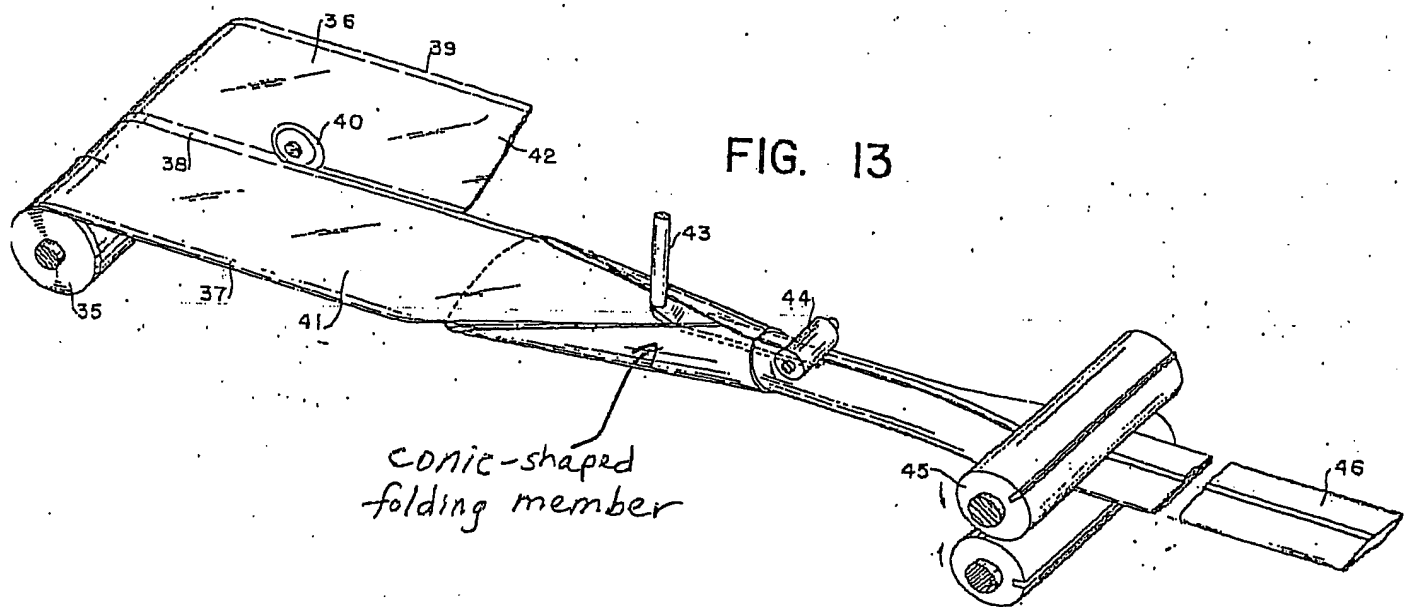
In Section 3 of the 5 April 2005 office action, Claims 29-38 and 40-48 are rejected under 35 USC 103(a) as unpatentable over U.S. Patent No. 3,130,647, to Anderson et al (“ANDERSON et al”) in view of EP 0 149 321, to Ohya (“OHYA”). The Office Action states that ANDERSON et al discloses a process for making a backseamed casing by making a multilayer shrink film, wrapping the film longitudinally around a forming shoe and backseaming while forwarding, and that ANDERSON et al discloses varying the thickness of at least one ply of the film, and that ANDERSON lists possible materials including polyethylene, styrene, nylon, vinylidene and chloride fluorocarbon plastic. The Office Action goes on to state that OHYA discloses multilayer shrink film comprising first and third outer layers comprising anhydrous polyolefin, and a second layer comprising polyester or a first polyamide of 5 to 40% of the total film thickness, and a fourth layer which is an oxygen barrier layer comprising polyvinylidene chloride (i.e., “VDC”). The Office Action states that with respect to Claim 45, that ANDERSON et al discloses a lap seal. The examiner takes Official Notice that limitations such as a Vicat softening point of 90°C, 9% by weight unsaturated acidm mer present, variations of layering, etc, are obvious design choices. The Office Action concludes that it would have been obvious to one of ordinary skill in the art to use the materials as taught by OHYA in the invention of ANDERSON et al for manufacturing a backseamed casing.

In response, Applicants contend that Claims 29-38 and 40-48 are patentable over ANDERSON et al in view of OHYA, for at least two reasons: (1) ANDERSON et al in view of OHYA does not establish a prima facie case of obviousness, and (2) even if a prima facie case of obviousness of Claims 29-38 and 40-48 has been made out (which is not the case), the subject matter of Claims 29-38 and 40-48 is patentable based on the unexpected results Applicants have shown over the ANDERSON et al in view of OHYA.

Before turning to a discussion of the specifics of ANDERSON et al and OHYA, Applicants note that each of the pending independent claims is directed to a process in which a multilayer film is wrapped around a forming shoe and backseamed, followed by being forwarded. The multilayer film has first and third layers which are outer film layers, and a second layer (which is an internal film layer, because it is between the first layer and the third layer) having a thickness that is at least 5% of the total thickness of the multilayer film. The second layer comprises polyamide and/or polyester. Applicants have discovered that the presence of an internal layer comprising polyamide and/or polyester and having a thickness of at least 5% of the total film thickness solves a problem. The problem is that the film necks down on the forming shoe during backseaming, i.e., shrinks tightly against the forming shoe during backseaming. The necking down of the film on the forming shoe has been found to occur to the extent that the film tightens so much around the forming shoe that the film splits or cannot be forwarded off of the forming shoe because it is so tight around the forming shoe. The presence of the internal layer comprising nylon and/or polyester, having a thickness of at least 5% of the total film thickness,

prevent the casing film from necking down against the forming shoe to the extent that the casing film ruptures or cannot be forwarded during backseaming. See Applicants' specification at Page 27 lines 1-4 and 22-29, Page 45 lines 11-13, and Page 54 lines 21-22. Thus, it is clear that Applicants' film design provided an advantage in that the film design solves the problem of the film necking down on the forming shoe during the sealing of the film longitudinally to form the backseam.

Turning first to the lack of a prima facie case of obviousness, Applicants first direct attention to FIG. 13 of ANDERSON et al.



As can be seen, the "multilayer web strip" is passed through a "folding and sealing station" in which the "marginal edge portions" of the web strip are "overlapped and bonded together". It is important to note that in FIG. 13 of ANDERSON et al, the film passes *inside* the conic-shaped

folding member. See FIG. 13 above. Because the film is inside the folding member, *it is not possible for the film to “neck down” against the folding member*, because the film is not “wrapped around” the folding member. That is, shrinkage of the film during sealing will cause the film to move *inward and away* from the conic-shaped folding member, rather than to cause it to become wrapped more tightly around the folding member. It should be further noted that OHYA also does not teach or suggest making a backseamed casing by making a longitudinal seal after wrapping the film around a forming shoe, as recited in Applicants’ independent Claims 29 and 48. Accordingly, that neither ANDERSON et al nor OHYA discloses a film which is sealed while it is wrapped around a forming shoe (as recited by Claims 29 and 48, the only pending independent claims), clearly demonstrates why the office action fails to set forth a prima facie case of obviousness of any one or more of Claims 29-38 and 40-48.

In addition, Applicants take this opportunity to ensure that the record reflects that Applicants do not agree with or acquiesce to the statement in the office action that a Vicat softening point of 90 degrees, 9% by weight unsaturated acid mer, variations in layering, etc., are “obvious matters of design choice at the time the invention was made”. Rather, the prior art relied on in the office action contains no teaching or suggestion that providing a heat shrinkable film with an internal layer having a thickness of at least 5% of the total film thickness, the internal layer comprising nylon and/or polyester, provides the process with a film capable of being wrapped around a forming shoe and sealed longitudinally to make a backseam without necking down on the forming shoe to the extent that the film cannot be forwarded or splits on the

forming shoe. Applicants' invention is the solution to a problem, and the prior art has no teaching or suggestion regarding either the problem or its solution. In fact, the prior art relied upon in the rejection does not even teach or suggest "wrapping the film longitudinally around a forming shoe" as recited in each of Applicants' independent claims.

Further in this regard, Applicants direct attention to the backseaming results for Applicants' Examples 1-6 with the comparative results provided for Applicants' Comparative Examples 7 and 9, as set forth on Pages 43-56, as well as the summary on Page 62 line 14 through Page 73 line 26 of Applicants' specification. Applicants contend that even if a prima facie case of obviousness has been made out, the results set forth in Applicants' specification rebut the prima facie case with evidence of unexpected results and problem solved.

### III. The Rejection of Claim 39 under 35 USC 103(a)

In Section 4 of the 5 April 2005 office action, Claim 39 is rejected under 35 USC 103(a) as unpatentable over ANDERSON et al in view of OHYA, further in view of U.S. Patent No. 4,448,792, to Schirmer ("SCHIRMER"). The Office Action appears to be applying ANDERSON et al and OHYA as in the rejection of Claims 29-38 and 40-48, and relies upon SCHIRMER for the disclosure of a multilayer shrink film having 6 layers, the film having an oxygen barrier layer comprising polyvinylidene chloride, the film shrinking in water at 185°F, with SCHIRMER further disclosing propylene homopolymers or copolymers for specific layers.

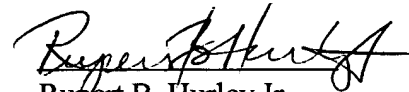
In response, Applicants contend that the office action also fails to set forth a prima facie case of obviousness of Claim 39. As with ANDERSON et al and OHYA, the office action fails set forth that SCHIRMER teaches or suggests a process in which a heat shrinkable film is sealed longitudinally while it is wrapped around a forming shoe, as recited in independent Claim 29, from which Claim 39 ultimately depends. As no one of the applied reference documents teaches or suggests this feature, which is recited in each of Applicants' independent Claims 29 and 48, no prima facie case of obviousness has been made out for Claim 39. Moreover, with respect to the patentability of Claim 39, Applicants again call upon the unexpected results arguments set forth above in response to the rejection of claims 29-38 and 40-48. Accordingly, this rejection should also be withdrawn.

#### IV. Conclusion

Applicants respectfully request reconsideration of the patentability of Claims 29-48, as amended, as well as consideration of the patentability of new claims 49-57, with a view towards allowance.

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